**Capstone Prep 3 – Part 2 Answers**

**Q1. What is the difference between Brainstorming and JAD Sessions?**

**Answer:**

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| **Brainstorming** | **JAD Session** |
| Brainstorming is a group activity whereeveryone comes together to discussstrategies for growth and improvement. | JAD (Joint Application Development)used as a technique for developingbusiness system requirements. |
| Used in all types of softwaredevelopment methodologies.  | Mainly used in agile methodology. |
| Quiet late delivery. | Faster delivery. |
| Lasts for couple of hours. | JAD sessions last for typically about 3days. |

**Brainstorming** is a technique that encourages creativity and problem-solving by having a group share ideas about a topic

A **Joint Application Development (JAD) session is** a collaborative workshop where stakeholders, clients, and business representatives work together to define a project's requirements and specifications. JAD sessions are a key part of the JAD methodology, which is a unique approach to software development that involves end users throughout the product lifecycle

**Q2. Why Document Analysis is one of the compulsory technique we use in a Project? Justify**

**Answer:**

**Document analysis can help you understand the project's context, scope, objectives, and constraints**

Document Analysis helps in dividing the information in various parts as we see the information from various angles. We may refer to multiple sources and combine the document review with other techniques such as interviews.

- Document Analysis helps us in **focusing the questions we have asked during an interview to client, it helps in understanding what to look out for.**

- It is helpful when we are particularly looking for a specific information, which we can dig further into documents.

- It is most **cost-effective** method where data is readily available.

**Documents provide Specific and Stable** data, if we use other methods, it may not be received as it is. It also serves as **evidence** of the shared information.

**Q3. In Which Context we will use Reverse Engineering?**

**Answer:**

**Reverse engineering is a process used to understand how a device, system, process, or software works.**

Reverse engineering is the process of **deconstructing a thing to learn how it works**, what it's made of, and how it is assembled.

Common reasons for reverse engineering include:

- Developing interfaces for system interoperability.

- Improving product documentation.

- Modernizing of software products.

- Security adaption.

- Fixing product flaws.

- Redesign

- Competitor intelligence

It's used in many fields, including:

* **Product development**

Companies use reverse engineering to analyze and improve their products, or update older ones. It can also speed up the product development process by helping create and optimize prototypes.

* **Security analysis**

Reverse engineering can be used to enhance the security of computer parts. For example, Google's Project Zero used reverse engineering to identify vulnerabilities in microprocessors.

* **Repurposing obsolete objects**

Reverse engineering can help repurpose objects that are no longer in use.

* **Creating replacement parts**

Reverse engineering is often used to create replacement parts for legacy equipment when the original parts are no longer available.

* **Learning how something works**

Reverse engineering can help you learn how something works by taking it apart and analyzing its workings in detail.

Reverse engineering is also known as backwards engineering or back engineering. The process involves three basic steps:

1. **Information extraction**: Gather all relevant information
2. **Modeling**: Combine the gathered information into an abstract model
3. **Review**: Test the model to ensure its validity

**Q4. What is the difference between Brainstorming and Focus Groups?**

**Answer:**

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| **Brainstorming** | **Focus Groups** |
| Purpose is to generate ideas | Purpose is to improve existing ideas. |
| No. of participants 6-8 | No. of participants 6-12 |
| Knowledge of topic of discussion is notnecessary. | In depth knowledge of topic of discussion is necessary. |
| No observers | Observer is present |
| Condition- problem exist | Condition- idea, solution or process exists. |

**Brainstorming** is a technique that encourages creativity and problem-solving by having a group share ideas about a topic

**A focus group** is a research method that involves a small group of people discussing a topic in a controlled setting

**What is a focus group used for?**

* To understand how people feel about a product, service, or concept
* To get a sense of how people use a product or service
* To gather insights that might not be possible from a survey or individual interview

**How does a focus group work?**

* A facilitator guides the discussion
* Participants are asked questions about their opinions and feelings
* Participants are encouraged to talk with each other
* The facilitator monitors the discussion to keep it on track

**What are the benefits of focus groups?**

* They can be cost-effective
* They can provide quick results
* They can provide rich data
* They can be flexible and adjusted based on group dynamics

**Q5. Observation Technique – Explain both Active and Passive approaches**

**Answer:**

Observation techniques are used to **gather information by watching and understanding workplace activities.** It is used to identify needs and opportunities, understand business processes, create performance standards, assess solution performance, and facilitate training and development.

**There are two approaches for observation as stated below:**

**Active –** It is also referred as **a noticeable approach**, while observing an activity the observer can ask any questions as they occur. Despite this interruption to the workflow, the observer can quickly understand the reasoning and any undocumented processes within the activity.

**Passive -** It is also referred to as an **unnoticeable approach**, in this approach, the observer does not interrupt the work while the user is performing the work activity. Any questions would be asked once the observation is over. This allows a natural flow of events to be observed without interference by the observer, as well as the measurement of the time and quality of work.

**Q6. How do you conduct the Requirements Workshop**

**Answer:**

A workshop can generally be described as a focused event that gathers a representative group of stakeholders to achieve a specific goal within a specific period. The technique is generally used for activities such as **planning, discussion, analysis, and elicitation**, as well as various others.

**Requirments workshops** are amongst the most **widely used techniques in project management and business analysis.** It’s also likely to be the most common approach for requirements elicitation. This is because there is no standard structure for the technique.

There are, however, three key steps that should be taken when conducting workshops. These include preparing, conducting, and following up

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| **Step 1** **Prepare** | **Step 2** **Conduct**  | **Step 3** **Follow Up** |
| Clarify intial scope and identify key stakeholder involvement. | Review the goals, agenda, and ground rules for meeting. | Follow up on any open action items.  |
| Define workshop agenda, schedule the session, and coordinate logistics. | Maintain professional and objective tone. | Distribute completed documentation it to appropriate stakeholders. |
| Detemine appropriate session tools, templates and outputs. | Elicit, analyze and document requirments using agreed tools and templates. | Schedule final walkthrough with the intent of gaining approval. |
| Conduct pre-workshop interviews, job shadowing, document reviews, surveys and benchmarking studies. | Occasionally validate the activities with the workshop’s stated objectivies to stay on track. |  |
| Send materials in advance to attendees. | Ensure all stakeholders are heard and obtain consensus on conflicting views. |  |

**Q7. In which context, Interview Technique can be conducted by a BA ? How may approaches are there in conducting Interviews? (Structured – Unstructured) Explain them. Explain the difference between Open Ended Questions and Closed ended Questions.**

**Answer:**

Interview is one of the most important techniques in business analysis. They can be used to verify the **facts, clarify ambiguity, trigger enthusiasm, engage end users, and identify requirements, opinions and ideas.** It is used to get more information from people in a formal or informal setting by asking questions and documenting the responses.

**There are three kinds of approaches to conducting interviews:**

**1. One-on-one approach**

**2. Panel interview -** job interview where multiple people ask questions to a candidate at the same time.

**3. Series interview -** a candidate is evaluated in a series of one-on-one interviews with multiple interviewers

The interview is a common technique for eliciting the requirements. It involves direct communication with the individuals or a group of people who are part of an initiative.

**There are two basic types of interviews. They are as follows:**

**Structured Interview -** In which the interviewer has a predefined set of questions.

**Unstructured Interview -** In which the interviewer does not have a predetermined set of questions and it may vary based on the stakeholder responses and interactions.

**The difference between Open Ended Questions and Closed-ended Questions are as follows:**

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| **Open-ended questions** | **Closed-ended Questions** |
| Questions that should be answered with long Responses. | Questions that should be answered with short responses. |
| Answers are often descriptive, and explanatory. | Answers are often short and factual. |
| Questions begin with words like how, why, explain, describe etc. | Questions begin with words like is, do, would, what etc. |
| Easy questions | Multiple choice questions. |
| Take a long time to answer | Can usually be answered quickly. |

**Q8. Questionnaire Technique – Where we will use? Give one example.**

**Answer:**

A questionnaire is a **research tool that contains a list of questions requiring responses from a predefined group of people.** It is used to collect relevant information that can help you arrive at definite results during research.

Questionnaires are used to **collect both qualitative and quantitative data from respondents.** It combines different question types like close-ended and open-ended questions that allow you to extract large volumes of data from respondents.

**There are four types of questionnaires –**

**1. Online Questionnaire** - a series of questions specifically structured to gather survey data about a target audience or group of people conducted online. The interviewees will answer the form quickly, accessing it through an internet connection.

**2. Telephone Questionnaire** -  telephone survey or computer-assisted telephonic interview (CATI), is a research method that involves collecting data from respondents over the phone

**3. Paper Questionnaire** - traditional method of collecting data by presenting a list of questions on a physical paper form for participants to fill out manually.

**4. Face-to-face interview -** job interview where the candidate and interviewer meet in person to discuss the candidate's skills and experience. The interview usually takes place in an office or other designated location

**Here are some examples of questionnaire techniques:**

**1.Customer satisfaction questionnaires**

These questionnaires can be used to assess the quality of customer service and overall experience.

**2. Product use satisfaction questionnaires**

These questionnaires can be used to understand product usage trends and customer preferences.

**3.Company communications evaluation questionnaires**

These questionnaires can be used to assess how well an organization's policies are being enforced.

**4.Customer demographic questionnaires**

These questionnaires can be used to gather information about a sample group to understand a specific population.

**Q9. How to Sort the Requirements – Where we will use? Give one example**

**Answer:**

When all the requirements are gathered there are chances of redundancy in those requirements so basically **all the scattered requirements are put together and the repetition of requirements are removed which is known as sorting of requirements.**

**The process for sorting is:**

1. Identification of requirements.
2. Dividing the identified requirements into functional and non-functional requirements
3. If identified requirements are similar, then they are put together and removed.

We will sort the requirements in two ways such as functional requirements and Non-Functional requirements.

**Functional requirements** define a function that a system or system element must be qualified to perform and must be documented in different forms. The functional requirements **describe the behavior of the system as it correlates to the system's functionality.**

**Examples of functional requirements:**

Authentication - Users can register with a username, password, and email address

Business rules

Audit tracking - A system can track important data automatically.

Certification requirements

Transaction corrections etc. - A system can record, enter, cancel, or delete transactions

**Non-functional requirements** are not related to the software's functional aspect. They can be the necessities that **specify the criteria that can be used to decide the operation instead of specific behaviors of the system.**

**Examples of non-functional requirements:**

Usability - The system should have features that make it easy for users to operate

Reliability - The system should operate consistently and reliably under normal and exceptional conditions

Security - The system should be able to handle malware and unauthorized access.

Storage

Cost

Flexibility

Performance

Legal or regulatory requirements, etc.

**Q10. Prioritise the Requirements – –Where we will use? Give one example.**

**Answer:**

Prioritization is a Technique **for queuing the requirements for the development process. Factors that influence the prioritization techniques are importance, risk, cost, benefits, time, and strategy.**

Three main actors involved in this are customer, developers, and business owners.

**Requirements can be prioritized by using the following steps-**

Step 1: Understand the Purpose & Strategy for Prioritization.

Step 2: List the Customer Needs.

Step 3: List the Requirements.

Step 4: Facilitate the Rating of the Need / Requirements Interrelationships.

Step 5: Determine Technical / Development Factors.

Step 6: Determine the Priority Rating.

**MoSCoW Technique:**

MoSCoW is a prioritizing technique which is used in business analysis and software development to reach mutual understanding with stakeholders on the importance of each requirement.

MoSCoW stands for must, should, could and would.

M- Must have the requirements to meet the business needs.

S- Should have this requirement, if possible, but project success does not rely on it.

C- Could have this requirement if it does not affect anything else in the project.

W- Would like to have this requirement later, but it won’t be delivered this time.

**For example,** in a project to develop an inventory management system, the project team may compare requirements such as real-time inventory tracking, demand forecasting, and automated replenishment, assigning priority values based on their importance to the stakeholders.

**Q11. Weekly status reporting – How we will drive?**

**Answer:**

A weekly status report is a complete overview of your week at work, covering projects you've completed, ones that are still in progress and upcoming plans.

A weekly report is a review of your workweek and provides a summary of what you completed, what projects are in progress and plans that outline your workflow for the next week. Typically, weekly reports are brief and concise and only one page long**. Most professionals send weekly reports on Friday afternoons to establish consistent communication with team members and supervisors.**

Additionally, a weekly report can benefit both you and your employer by providing insight into important aspects of the work you complete.

**Q12. Meeting Minutes Document – prepare one Sample**

**Answer:**

Minutes is to **create an official record of the actions taken at a Meeting**. Minutes serve to both memorialize the actions taken for those attended the Meeting as well as for those who were unable to attend the Meeting.

**Meeting minutes are notes that are recorded during a meeting**. **They highlight the key issues that are discussed, motions proposed or voted on, and activities to be undertaken.**

MEETING AGENDA :

Meeting/Project

Name: Sprint Review Meeting

Date of Meeting:

(MM/DD/YYYY) 07.02.2023 Time: 9:30

Meeting

Facilitator: Business Analyst Location: Chennai

1. Discuss status of sprints

2. Discuss progress report of project.

3. Discuss about impediments if any.

4. Suggest Solutions

**2 Attendees**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Department** | **E-mail** | **Phone** |
| ABC | Development Team | ABC@yahoo.com | 8999999999 |
| XYZ | Technical Team | XYZ@gmail.com | 9000000009 |
| Renuka ch | Bussiness Analyst | Renuka.ch@gmail.com | 7600000000 |

**3. Meeting Agenda**

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| --- | --- |
| **Topic** | **Owner** |
| Decision about the actions n sprints | Development Team |
| Decision on WIP items | Development Team |

Wip- work in progress

**Q13. Change Tracker – Document - – prepare one Sample**

**Answer:**

The role of BA in change request is very important as the **change requests differ in number and complexity across business projects and may come in before, during or after implementation of a solution**.

**Below are the steps to follow:**

- Understand the reason for the change

- Understand the impact of the change

- Understand the effort required to implement the change

- Ensure that the change request follows the predetermined approval proces

**Global Disbursement (Payments)**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Milestone/Requirement | Request No | Requestor | Description of the change | The reason for the change | The impact of the change | The proposed actionto be taken | The business priority of the change | The status of the change (approval block) |
| Changing DB Path for Servicing Module | 1 | ABC | New query will be created withnew columns to avoid data collusion | To Fetch more relevant data | More Clarity inData fetching  | XXX | High | In Progress |

**Q14. Difference between Traditional Development Model and Agile Development Models:**

**Answer:**

**Traditional software development** is a linear, sequential approach that involves dividing the development process into distinct phases. The waterfall model is a well-known example of traditional software development.

**Phases**

**Agile software development** is a set of practices and frameworks for developing software that emphasizes collaboration, flexibility, and continuous improvement.

**How it works**

* **Iterative: Agile teams build software in small increments, allowing for frequent testing and feedback**
* **Collaborative: Agile teams work together to deliver value to customers**
* **Adaptive: Agile teams are able to respond to changes in requirements, priorities, or market conditions**

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| **Traditional Software Development** | **Agile Software Development** |
| It is used to develop simple software. | It is used to develop complicated software. |
| In this methodology, testing is done once the development phase is completed. | In this methodology, testing and development processes are performed concurrently. |
| It follows a linear organization structure. | It follows an iterative organizational structure. |
| It provides less security. | It provides high security. |
| Client involvement is less as compared to Agile development. | Client involvement is high as compared to traditional software development. |
| It provides less functionality in the software. | It provides all the functionality needed by the users. |
| It supports a fixed development model. | It supports a changeable development model. |
| It is used by freshers. | It is used by professionals |
| Development cost is less using this methodology. | Development cost is high using this methodology. |
| It majorly consists of five phases. | It consists of only three phases |
| **Models based on Traditional Software** **Development-** | **Models based on Agile Software Development-** |
| Spiral Model | Scrum |
| Waterfall Model | Extreme Programming (XP) |
| V Model | Crystal |
| Incremental Mode | Dynamic Systems Development Method (DSDM) |
|  | Feature Driven Development (FDD) |
|  | Adaptive Software Development (ASD) |

**Q15. Explain Brainstorming Technique – Where to use?**

**Answer:**

Brainstorming can be done with **group or with an individual**. Ideas collected during this session and reviewed and analyzed. It is effective in generating lots of ideas on specific issue to determine which is the best.

**This technique could be used in following scenarios.**

When we have a Time constrain and want to gather requirements, we must use this technique.

When we want to generate an idea without having any one’s biased, as more importance is given to ideas.

When we want Quantity over quality in generating Ideas, this method would be considered best.

Once Brainstorming Session is over, there is always refining session which gives us, more refined ideas.

When we have multiple options to choose from, we must consider this method as this gives more emphasis on ideas generation, we can get insight from various people on right one

**Q16. What reports Accounts Departments will generate (minimum 5 reports)**

**Answer:**

Accounts and HR will be reviewing the request and generate various reports and that will be sent to Employees. Following are the reports which will be generated by an employee.

**Loan Approval Report:** This will be Reviewed and sent by HR department in coordination with Accounts Department.

**Loan Rejection Report:** Here, employee would be informed about the status of the Request which is rejection in this case.

**Loan Approval terms and Conditions:** Once the loan is approved it will be informed to employee, along with that it will also be communicated the terms and conditions it will have to oblige.

**Loan Repayment Schedule Report:** Here, Numbers are shared with employee about the tenure for which loan is approved, ROI, EMI and tenure for which he will be repaying the loan.

**Loan Offer Report:** In this Report HR Department will inform employee the amount sanctioned by HR department, tenure and EMI employee will have to bear for.

**Q17. What is the structure of the message/mail communicated from the HR department to the employee in case the Loan is rejected?**

**Answer:**

From: renuka@tts.com

To: Priya@tts.com

Cc: financedept@tts.com hrdept@tts.com

BCC:

Subject: Regarding loan application no. AXYZ0012

Dear Priya,

Good day!!

This mail is regarding your loan application no. AXYZ0012 dated 20-12-2024. We are sorry to inform you that your loan application got rejected due to below mentioned reason.

As per company policy, the employee should finish continous term of 1 year is only eligible for loan.

As per our records we noticed that your DOJ 16-03-2024 and you have not completed your 1 year of service based on the company policy.

Thanks for approaching us. You can reapply for loan once set condition is met.

Regards,

Renuka

Senior Executive, HR department

TTS Company.

**Q18. What is the structure of the message/mail communicated from the HR department to the employee in case the Loan is approved?**

**Answer:**

From: renuka@tts.com

To: ram@tts.com

Cc: financedept@tts.com hrdept@tts.com accountsdept@tts.com

BCC:

Subject: Regarding loan application no. AXYZ0026

Dear Ram,

Good day!!

This mail is regarding your loan application no. AXYZ0026 dated 26-12-2024. We are pleased to inform you that your loan application for personal loan of Rs. 10 lakhs has been approved from our end.

Kindly keep in touch with Mr. Prasanth finance department for furthur proceedings.

Thanks and Regards,

Renuka

Senior Executive, HR department

TTS Company.

**Q19. Design a sample report on the Loans applications Received by the accounts department.**

**Answer:**

**Loan Disbursement for December Month**

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| **Loan** **Types** | **Application****Date** | **Applicant****Name** | **Eligibilit****y Grade** | **Loan** **Approval****Status** | **Amount** | **Tenure** | **ROI** | **EMI** |
| Vehicle Loan | 14/12/2024 | Rajesh | C | Not Eligible | - | 6 months | - | - |
| Child EducationLoan | 10/12/2024 | Satish | A | Approved | 5,00,000 | 3 years | 10 | 5,000 |
| Home loan | 26/12/2024 | Ram | A | Approved | 10,00,000 | 5 years | 11 | 10,000 |
| Personal Loan | 20/12/2024 | Priya | D | Not Eligible | - | 9 months | - | - |
| Marriage Loan | 05/12/2024 | Sravya | B | Approved | 6,00,000 | 18 months | 10 | 6,000 |

**Q20. Which reporting Tools we will use for generating reports.**

**Answer:**

Power BI and Tableau are the tools used for generating Report.

**Power BI:**

Power BI is a **Data Visualization and Business Intelligence tool** that converts data from different data sources to interactive dashboards and BI reports.

Power BI suite provides multiple software, connector, and services - Power BI desktop, Power BI service based on SaaS, and mobile Power BI apps available for different platforms.

**Tableau:**

Tableau is a **powerful** tool used for **data analysis, visualization**. It allows creating amazing and **interactive visualization and that too without coding.** It provides the features like cleaning, organizing, and visualizing data.

Data analysis is very fast with Tableau tool and the visualizations created are in the form of dashboards and Worksheets.

**The best features of Tableau software are as follows:**

**Data Blending -** Data Blending in Tableau is an approach to combine data from multiple varieties of sources and display them as a whole on one single screen. For example, consider a scenario where a business analyst needs to work with sales data.

**Real time analysis -** ability to analyze data as it streams into the system, allowing users to gain insights immediately. This feature is useful for businesses that need to make data-driven decisions quickly, such as: monitoring sales, tracking marketing performance, and observe customer behaviour.

* Collaboration of data - Sharing data, reports, and dashboards
* Creating visualizations
* Exploring data
* Making follow-up queries
* Forwarding visualizations to others

The great thing about Tableau software is that it doesn’t require any technical or any kind of programming skills to operate.